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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,874	09/22/2003	Christoph Liebetrau	16525	1177

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EXAMINER	
KRUER, STEFAN	
ART UNIT	PAPER NUMBER
3654	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/667,874	LIEBETRAU ET AL.	
	Examiner	Art Unit	
	Stefan Kruer	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3, 5 – 8, 12 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Fromberg (5,224,570).

Re: Claims 1 – 3, Fromberg discloses a safety device comprising:

- Retaining element (3),
- An abutment (7) spaced from and fixed relative to said retaining element,
- A braking element (11) movably positioned between said retaining element and said abutment and spaced a distance from said retaining element to accept a portion (4) of a guide rail (5),
- Said braking element having a rest position spaced from the surface of said guide rail,
- A lever mechanism (20, 1, Fig. 1) connected to said braking element for moving said braking element from said rest position to a braking readiness position contacting the surface of said guide rail (at surface 13), whereby downward movement of movement of the elevator causes said braking element to be squeezed between the guide surface and said abutment,
- an operating mechanism (Col. 4, Line 59 and Col. 5, Line 13) connected to said lever mechanism for selectively moving said braking element between said rest and readiness positions (Col. 5, Line 5), when the elevator car is in an operating state below over-speed ("malfunction", Col. 4, Line 56).
- said braking element is a blocking roller,

- said abutment is angled relative to said retaining element whereby an interspace (2) narrows between said retaining element and said abutment opposite a predetermined direction of motion of the elevator car.

Re: Claims 5 – 8, Fromberg discloses a safety device comprising:

- a guide (9) along which the position of said braking element is changeable,
- said guide forms an oblong recess,
- said guide is shaped to hold said braking element in said rest position,
- said operating mechanism which applies a force to his braking element for bringing said braking element into contact with said guide surface and keeping said braking element in a state of equilibrium whereby said braking element is moved automatically relative to said abutment and opposite to the direction of motion of the elevator car.

Re: Claim 12, Fromberg discloses his guide surface (one side of portion 4) is one guide surface of his guide rail (5) and said retaining element (3) is a first guiding element for guiding the elevator car alongside another guide surface (opposite side of portion 4) of the guide rail.

Re: Claim 15, Fromberg discloses safety device having a U-shaped configuration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 9 – 11 and 16 - 18 are rejected under 35 U.S.C. 103(b) as being unpatentable in view of Fromberg over Rebillard et al (US 6,173,813).

Re: Claim 4, Fromberg does not disclose his lever mechanism swiveling about an axle, his lever mechanism being ultimately linked to a non-depicted governor or speed limiter (Col. 4, Line 59).

Rebillard et al teach their lever mechanism (94) connected to their braking element (96) of roller form, whereby their lever mechanism swivels around an axle (100) in response to an electromechanical actuator in lieu of the non-depicted mechanical means of Fromberg.

It would have been obvious to one of ordinary skill in the art to modify the invention of Fromberg with the teaching of Rebillard et al to provide electromechanical actuation of the braking means for the benefit of integrating an emergency brake in a electronic control systems whereby sensors and/or set parameters can affect braking.

Re: Claims 9 - 11, Fromberg discloses his operating mechanism as a mechanical device.

Rebillard et al teach their operating mechanism having a solenoid (20) that "...exerts magnetic force... on said braking linkage..." (Col. 1, Line 58) whereby said braking element is maintained in said rest position. Furthermore, if the solenoid is deactivated, thereby extinguishing the electromagnetic force, their bolt (86) to which their lever mechanism (94) is pivotally connected, is forced by their pre-loaded spring (88) to move their braking element to a brake readiness position, whereby the braking element automatically proceeds to a full braking position in response to the opposite motion of their elevator car and the fixed position of their inclined abutment.

It would have been obvious to one of ordinary skill in the art to modify the invention of Fromberg with the teaching of Rebillard et al to provide a fail-safe mode in keeping with conventional, electromechanical control means.

Re: Claim 16, applicant has stated that the brake lining of the instant invention is well known to the automotive industry (Para. 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize materials common to automotive brake linings.

Re: Claims 17 and 18, Fromberg discloses:

- first leg and second legs (1a and 9), said first leg having a brake lining (3) attached thereto and said second leg spaced from and fixed relative to said first leg,
- a blocking roller (11) movably positioned between said first leg and said second leg and spaced a distance from said first leg to accept a portion of a guide rail therebetween,
- said blocking roller having a brake rest position,
- a lever mechanism (20, 1, Fig. 1) connected to said braking element for moving said braking element from said rest position to a braking readiness position contacting the surface of said guide rail (at surface 13), whereby downward movement of movement of the elevator causes said braking element to be squeezed between the guide surface and said second leg,
- an operating mechanism connected to said lever mechanism for moving said blocking roller between said rest and braking readiness positions, when the elevator car is in an operating state below over-speed;

however, the operating mechanism does not move the braking element selectively.

Rebillard et al teach their operating mechanism (bounded by 71, Fig. 5) for movement of their braking element from the brake rest to readiness positions, in automatic response to either an over-speed or similar condition as well as by selective control.

It would have been obvious to one of ordinary skill in the art to modify the invention of Fromberg with the teaching of Rebillard et al to provide an operating mechanism providing either automatic or selective engagement of the braking element, for safety and maintenance purposes.

Re: Claim 18, Fromberg discloses said first and second leg are formed as legs of a U-shaped safety device block (Fig. 2) and an interspace (2) narrows between said second leg and said guide surface opposite the direction of motion of the elevator car.

Response to Arguments

Applicant's arguments filed 13 February 2007 with respect to **Claims 1 and 17** have been fully considered but they are not persuasive.

Fromberg, as reviewed, addresses the employment of his safety device "... in the event of a malfunction of the elevator or there arising an emergency situation, i.e. during an abnormal operating condition of the elevator or counterweight..." Furthermore, as taken from the text of the specification, the "brake readiness" position comprises that position wherein contact between the braking element and the guide surface is in first contact with the guide surface, wherein further motion of the elevator car relative to the safety device will automatically move the braking element in an opposing direction and thereby into a braking position (Pg. 3, Lines 12 – 20).

Additionally, Aulanko et al, as included in the Information Disclosure Statement, and Huang et al (6,082,506) are cited, respectively, for reference of:

- a safety device having rest-, braking readiness- and braking positions and used, for instance, "... to stop the elevator... in a case where an error in operation results in the elevator leaving a door zone with doors open";
- a safety device comprising a retaining element (20), an abutment (10) spaced from and fixed relative to said retaining element, a braking element (43) movably positioned between said retaining element and said abutment and spaced a distance from said retaining element sufficient to accept a portion of a guide rail therebetween, said braking element having a rest position, a lever mechanism (45) that swivels about an axle and connected to said braking element and an operating mechanism (50) connected to said lever mechanism for selectively moving said braking element between a rest position and a brake readiness position when the elevator car is in an operating state below over-speed.

Neither the original claim language nor the amended claim language overcame the rejections based on the prior art of record of the previous office action.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Kruer whose telephone number is 571.272.5913. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571.272.6911. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

SHK
9 March 2007

GENE O. CRAWFORD
SUPERVISORY PATENT EXAMINER